ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
REGULATORY CONTACT RECORD

Date/Time: January 11, 2002/ 1200

Site Contact(s): Dyan Foss
Phone: 7577

Regulatory Contact: David Kruchek and Elizabeth Pottorff
Phone: 303-692-3328 and 303-692-3429

Agency: CDPHE

Purpose of Contact: 123 and 121 Pad Concrete Recycling

Discussion

On December 27, 2001, an e-mail was sent to CDPHE providing information on the characterization information that is available and will be collected for the 123 pad and 121 pad (information attached). The information was provided to indicate how it would be demonstrated that the concrete pads meet the unrestricted release criteria specified in the RSOP for Recycling Concrete.

A meeting was held to discuss this subject on January 9, 2002. The map and available characterization information were discussed. On January 11, 2002, it was agreed that the approach proposed for the 121 pad was acceptable, and the radiological data was acceptable for the 123 pad, but additional chemical characterization was required. It was agreed that 5 samples would be collected on the 123 pad and analyzed for total metals. The samples will be collected in the locations of the RCRA unit/storage area in rooms 103, 105, 124, and 157. A total metals sample will also be collected in the area of the lead hit on the north side of the building in room 105.

Contact Record Prepared By: Dyan Foss

Required Distribution:

J. Legare, RFFO
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Contact Record 4/10/00
Rev. 10/11/00

1/5

Foss, Dyan

From: Foss, Dyan
Sent: Thursday, December 27, 2001 9:20 AM
To: 'elizabeth.pottorff@state.co.us'; David Kruchek (E-mail)
Cc: Kruchek, David; Primrose, Annette; Spence, Tracey; Burmeister, Mark; Tower, Steven; Castaneda, Norma
Subject: Concrete disposition for 123 and 121 slabs

Elizabeth - As I indicated on the phone, the attachments outline the process that will be used to determine whether the slabs meet the unrestricted release criteria and can be recycled in accordance with the RSOP for Recycling Concrete. I have also discussed these slabs with Dave Kruchek as this is an area between decommissioning and environmental restoration, and he may be more familiar with requirements in the RSOP for the Recycling Concrete. I would be happy to meet with you at Rocky Flats or the State office and address your questions/concerns. Please call me once you have had an opportunity to review the attachments.

Thank you, Dyan Foss (303) 966-7577


Group 100-5.doc


B123 Slab Concrete Management ...

Building 121 Security Incinerator Slabs

An incinerator was located south of Building 121 and used for the incineration of classified documents and film. During its operating history, the incinerator was used to burn No Carbon Required (NCR) type paper containing PCBs. Dioxins and furans could potentially have been generated from incineration of this paper. The incinerator has been removed and dispositioned, and a pair of concrete slabs remain at the site.

The concrete will be sampled and analyzed for dioxins, furans, and heavy metals (totals analysis). In addition, the concrete will be surveyed for radiological contamination using field instruments. If the samples and surveys indicate the concrete meets the unrestricted release criteria, the concrete will be stockpiled for recycling in accordance with the RSOP for Recycling Concrete. If the concrete does not meet the unrestricted release criteria, the concrete will be dispositioned as waste.

Building 123 Slab Concrete Management Summary
December 26, 2001

The Building 123 Remediation Project is scheduled to begin in January 2002. The remediation activities include removal of the remaining concrete foundation slab and associated structures beneath the slab (e.g., subsurface process waste lines and process waste sump pits, and subsurface source pits). This work will be performed pursuant to the *RSOP for Routine Soil Remediation.* Concrete material generated through removal of the foundation slab that meets the unrestricted release criteria will be managed in accordance with the *RSOP for Recycling Concrete.* The Building 123 concrete recycling notification will be included in the Environmental Restoration RSOP Notification. Management of the Building 123 concrete rubble will be based on the existing Building 123 pre-demolition survey and Under Building Contamination (UBC) characterization results. The survey and UBC results will be augmented by in-process surveys obtained during remediation.

The Building 123 materials and subsurface soils have been previously characterized as part of two separate characterization projects. The results from these projects are presented in the *Close-Out Radiological Survey Report Buildings 123 (East* Wing*), 123S and 114* (1998)*; Close-Out Radiological Survey Report Buildings 123, (North and West Wings) and 113* (1998)*;* and in the *Final Data Summary Report for the Characterization of UBCs 123 and 886* (2001). The 1998 characterization data include pre-demolition MARSSIM survey data. The MARSSIM survey results include data from the floors and subsurface sumps and pipe chases of the East, West and North wings of the building foundation. The UBC investigation data include direct and removable survey results for 74 surface areas of the building slab and 24 survey results for concrete cores.

The results indicate that most of the Building 123 slab may be free-released as recyclable material and stockpiled and processed for onsite backfill, in accordance with the *RSOP for Recycling Concrete.* Contaminated concrete will be categorized, packaged and shipped offsite for disposal. The UBC investigation results for the concrete slab surface surveys are attached.

Nine areas within the slab have residual radioactivity above the RFETS release criteria. These contaminated areas will be segregated from the foundation slab and the associated materials (e.g., concrete, metal, and soil) will be containerized and disposed as low-level waste (see Building 123 Plate 1). The areas of known or suspected residual contamination include:

- Four subsurface source pits filled with concrete in the northwest portion of the slab, in former Rooms 109 and 109B;
- Two contamination areas covered with steel plate in the former Rooms 109 in the north wing and Rooms 124/125 in the east wing; and
- Three subsurface process waste sump locations back-filled with soil and concrete in the west wing, in former Rooms 156, 157, and 158.

Verification surveys will occur during slab removal. Any areas encountered and determined to contain contamination above the release criteria will be segregated and disposed according to in-process characterization results. In addition, all process waste lines (i.e., P-1, P-2, and P-3) will be removed and characterized for appropriate disposal.

The remaining concrete material, which meets the unrestricted release criteria as specified in the *RSOP for Recycling Concrete* and as verified by both the pre-demolition survey data and the in-process verification characterization, will be transported to the designated onsite stockpile area managed in accordance with the RSOP.

4

2000 UBC Investigation Survey Results –

Ninety-eight (98) locations of the slab were surveyed as part of the 2000 UBC investigation in accordance with the *Final Sampling and Analysis Plan for the Characterization of UBC 123 and Building 886,Implementing Horizontal Directional Drilling and Environmental-Measurement-While-Drilling, Rev. 0, May 2000.* The Building 123 slab was surveyed to identify potential areas that may have contributed to subsurface contamination. Direct and removable surveys were collected both on 74 surface areas of the slab and on 24 concrete cores, well distributed over the slab. The results of these surveys, summarized below, show that every survey was below the detection limits of the survey instruments. These surveys were NOT conducted in areas previously known to contain fixed contamination, as established in the 1998 investigation.

B123 Slab Surface Survey Results – December, 2000

Alpha		Beta		Number of Locations	Survey Areas on Slab
Swipe	Direct[1]	Swipe	Direct[1]		
dpm/100 cm^2	dpm/100 cm^2	dpm/100 cm^2	dpm/100 cm^2		
<18	<56	<205	<278	11	E&N Wings
<18	<56	<205	<301	8	W&N Wings
<18	n/a	<205	n/a	15	E Wing
<18	<33	<205	<305	4	NW Corner
<18	n/a	<205	n/a	15	N Wing
<18	n/a	<205	n/a	15	W Wing
<18	<12	<205	<326	2	SE Corner
<18	n/a	<205	n/a	4	SE Corner
Total # of Slab Surface Area Locations				**74**	

[1] n/a denotes direct reading not collected during that survey.

Building 123 Slab Concrete Core Survey Results – December, 2000

Alpha		Beta		Number of Cores	Core Locations from Slab
Swipe	Direct	Swipe	Direct		
dpm/100 cm^2	dpm/100 cm^2	dpm/100 cm^2	dpm/100 cm^2		
<18	<56	<205	<278	10	E&N Wings
<18	<56	<205	<301	8	W&N Wings
<18	<12	<205	<297	4	NW Corner
<18	<65	<205	<310	2	SE Corner
Total # of Cores				**24**	